

REMARKS

Reconsideration of the application in view of the above amendments and following remarks is respectfully requested.

I. Status of the Claims

Claim 1 has been amended. No new matter is added.

Claim 4 was previously canceled without prejudice or disclaimer of the subject matter contained therein.

Claims 7-10 have been added; they introduce no new subject matter.

Claims 1-3 and 5-10 are pending in the application.

II. Claim Rejections Under 35 U.S.C. §§ 102 and 103

Claims 1-3 and 5 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,307,622 to Walter. Claim 6 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Walter in view of U.S. Patent No. 779,896 to Wood. Applicants respectfully traverse the rejections.

Claim 1 has been amended to recite “a bearing member fitted inside the tube part, and supporting the steering drive shaft.” This element is not disclosed or suggested in Walter. In Walter, the end housing 3 supports the rack 5. In contrast and as claimed, a bearing member fitted inside the tube part supports the steering drive shaft.

In addition, Walter requires a locking nut 16 and a clamping ring 18 to form the recess. In contrast, as claimed, a recess is provided in a bracket. Moreover, in Walter, a housing end 1 is provided at an end of a cylinder 2. Then, it is necessary to provide a thrust of the locking nut 16 from the cylinder 2 side to fix both the housing end 1 and the cylinder 2 so as to contain the plurality of components inside the housing end 1. The series of these operations increases the complexity of the manufacturing process.

Thus, claim 1 is allowable and claims 2, 3, 5, and 6 depend from claim 1 and are allowable based at least on the arguments above.

III. New Claims

New claims 7-10 are distinct from both Walter and Wood. New claim 7 recites that bracket attaches the housing to the car body. In contrast, Walter bracket does not. The Examiner admits that Walter's bracket is a combination of housing 1, locking nut 16 and clamping ring 18. None of those elements, either alone or in combination are disclosed to attach the housing to the car body. Walter does not disclose the claimed bracket. Further, Wood does not cure the silence of Walter.

Further, regarding Wood, it is non-analogous to the present invention. Wood teaches to one of ordinary skill in the art pipe flange assemble techniques. Further, Wood teaches away from the being used with Walter or the present invention. Wood teaches heating the flange to expand its diameter to be greater than that of the pipe and then letting it cool in place. This technique is taught away from to assemble the steering apparatus of either Walter or the present invention. The background of the present application discloses that one of ordinary skill is aware that just the heat from welding will cause thermal distortions in the tube part. *See*, Specification, page 2, line 20 – page 3, line 8. One of skill in the art could foresee the difficulties and distortions when sections of the steering apparatus need to be heated. Further, these distortions increase the cost and time to make the finished product since the distortions need to be corrected and the corrections need to be made earlier in the assembly process.

Wood is further taught away from since Walter is clearly teaching the use of "light metal tubing, ... thin wall, easily formed with corrugations, and resulting in cost saving and weight reduction." Walter, column 1, lines 44-47. Walter is stressing simple construction and light materials. In contrast, Wood teaches heating the flange, a piece significantly thicker than the pipe and made of heavier material, i.e. iron or steel (*see*, Wood, Figure 2 and page 1, lines 7-10), which is directly contrary to Walter's teaching.

Further, one of ordinary skill in the art would only use Wood's plurality of protrusions with impermissible hindsight. Walter is using an annular corrugation 14 to support locking nut 16 and clamping ring 18. One of ordinary skill in the art would not weaken that support by reducing the surface area over which the annular corrugation 14 provides support. Further, one of ordinary skill in the art is aware a majority of the sealing force between the pipe and flange is the pressure exerted

by the shrunken flange upon the pipe, which is not an option in Walter. *See*, Wood, page 1, lines 54-58.

Thus, Wood is not a proper reference in combination with Walter, it is non-analogous and taught away from for numerous reasons.

Walter teaches that the corrugation is pre-formed since to lock it in place he uses locking nut 16 and clamping ring 18. This teaches one of ordinary skill in the art that the corrugation was pre-formed in cylinder 2 before being placed in housing 1. *See*, Walter, column 2, lines 9-27. Walter teaches away from the bracket being “a single molded piece” since that would defeat Walter’s invention. Further, the recess in Walter cannot be pre-formed in the bracket prior to the bending of the corrugation since the locking nut 16 and clamping ring 18 must be added after the fact. Lastly, the use of nuts and rings does not permit permanently preventing the bracket from escaping the tube part. The castellated nut taught by Walter (*see* Walter, column 2, line 20) is typically secured with a cotter pin, which one of ordinary skill in the art is aware can be removed and is thus not permanent. For these reasons, the new claims are patentable over the prior art of record.

CONCLUSION

Each and every point raised in the Office Action dated February 4, 2009 has been addressed on the basis of the above amendments and remarks. In view of the foregoing it is believed that claims 1-3 and 5-10 are in condition for allowance and it is respectfully requested that the application be reconsidered and that all pending claims be allowed and the case passed to issue.

If there are any other issues remaining that the Examiner believes could be resolved through a Supplemental Response or an Examiner's Amendment, the Examiner is respectfully requested to contact the undersigned at the telephone number indicated below.

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Respectfully submitted,

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